

WHAT IS CLAIMED IS:

1. A ball bat comprising a hollow barrel member having proximal and distal ends, and an elongate handle member, said handle member having a proximally extending handle section, said handle member being of sufficient length distally so as to extend within the hollow of said barrel member and be connected to said barrel member at said proximal and distal ends thereof.
2. The ball bat as in claim 1, further comprising a connector disposed between and connecting an intermediate region of said handle member to said proximal end of said barrel member.
3. The ball bat as in claim 2, wherein said proximal end of said barrel member is tapered, and wherein said connector includes a proximal taper which establishes a smooth transition from said tapered proximal end of said barrel member to said intermediate region of said handle member.
4. The ball bat as in claim 1, wherein said distal end of said barrel member is open, and wherein said ball bat further comprises a barrel end plug which closes said open distal end of said barrel member, and wherein a terminal end of said handle member is connected to said barrel end plug.
5. The ball bat as in claim 1, wherein said barrel member includes an internal connection disc, and wherein a terminal end of said handle member is connected to said connection disc.

6. The ball bat as in claim 1, wherein said handle member is substantially constant lengthwise cross-sectional diameter.

7. The ball bat as in claim 1, wherein said handle member is tapered along its length.

8. The ball bat as in claim 2, wherein said connector is comprised of a urethane elastomer.

9. A ball bat as in claim 1, wherein a proximal terminal end of said handle member includes a knob.

10. A ball bat comprising:

a hollow barrel member; and

a one-piece handle member connected to said barrel member, wherein

said handle member has a substantially constant cross-sectional diameter and extends lengthwise within the hollow of said barrel member so as to establish an annular internal space therewithin.

11. A ball bat as in claim 10, wherein said handle member has a substantially constant lengthwise cross-sectional diameter.

12. A ball bat as in claim 10, wherein said handle member has a tapered cross-sectional diameter along its length.

13. A ball bat as in claim 10, wherein said handle member includes a proximal handle region extending proximally of said barrel member, a distally extending internal support region extending distally within the hollow of said barrel member, and an intermediate region between said proximal handle and support regions.

14. A ball bat as in claim 10, further comprising a barrel end plug closing said distal end of said barrel member, and wherein said internal support region of said handle member has a terminal end which is connected to said barrel end plug.

15. A ball bat as in claim 10, comprising an annular connector which surrounds and connects said intermediate handle region to said proximal end of said barrel member.

16. A ball bat as in claim 15, wherein said proximal end of said barrel member is tapered, and wherein said connector includes a proximal taper which establishes a smooth transition from said tapered proximal end of said barrel member to said intermediate region of said handle member.

17. A ball bat as in claim 10, further comprising an annular space defined between said intermediate region of said handle member and said proximal region of said barrel member, and wherein said connector includes a distal region which fills said annular space so as to connect said intermediate region of said handle member and said proximal region of said barrel member.

18. A ball bat as in claim 10, wherein a proximal terminal end of said handle member includes a knob.

19. The ball bat as in claim 10, wherein said barrel member includes an internal connection disc, and wherein a terminal end of said handle member is connected to said connection disc.

20. A ball bat comprising:

- a hollow barrel member having an open tapered proximal end and an open distal end;

- an elastomeric barrel end plug which is connected to and closes said distal end of said barrel member;

- an elongate handle member coaxially positioned with respect to said barrel member and having a proximal region extending proximally from said barrel member, an internal support region extending distally within the hollow of said barrel member and terminating at a terminal end located adjacent said distal end of said barrel member, and an intermediate portion located between said proximally extending handle region and said distally extending support region and positioned adjacent said proximal end of said barrel member; and

- an elastomeric connector which connects said intermediate region of said handle member to said proximal end of said barrel member; wherein

- said terminal end of said internal support region is embedded within said barrel end plug.

21. A ball bat as in claim 20, wherein said proximal end of said barrel member is tapered, and wherein said connector includes a proximal taper which establishes a smooth transition from said tapered proximal end of said barrel member to said intermediate region of said handle member.

22. A ball bat as in claim 21, further comprising an annular space defined between said intermediate region of said handle member and said proximal region of said barrel member, and wherein said connector includes a distal region which fills said annular space so as to connect said intermediate region of said handle member and said proximal region of said barrel member.

23. A ball bat as in claim 21, wherein at least one of said connector and barrel end plug is formed of an elastomeric urethane.

24. A ball bat as in claim 23, wherein said elastomeric urethane has a durometer hardness value of between about 25 shore A to about 99 shore A.

25. A ball bat as in claim 24, wherein said durometer hardness value is between about 80 shore A to about 95 shore A.

26. A ball bat as in claim 24, wherein said durometer hardness value is between about 90 shore A to about 95 shore A.

27. A method of making a ball bat comprising the steps of:

- (a) positioning an elongate handle member coaxially with respect to a hollow barrel member so that an

intermediate region of said handle member is located adjacent a proximal end of said barrel member to establish a proximally extending handle region and a distally extending internal support region;

- (b) connecting the intermediate region of the handle member to said proximal end of said barrel member by interposing a connector therebetween; and
- (c) connecting a terminal end of said distally extending internal support region to a distal end of said barrel member.

28. The method of claim 27, wherein step (c) includes embedding the terminal end of said distally extending internal support region in a barrel end plug.

29. The method of claim 27, wherein step (c) includes connecting the terminal end of said distally extending internal support region to an internal connection disc within the barrel member.

30. The method of claim 27, further comprising the step of (d) providing a knob at a proximal terminal end of said proximally extending handle region.

31. The method of claim 27, wherein said proximal end of said barrel member is tapered, and wherein step (b) includes forming the connector with a visible taper to provide a smooth transition between said tapered proximal end of said barrel member and said intermediate region of said handle member.

32. The method of claim 27, wherein step (b) comprises forming said connector from an elastomeric urethane.

33. The method as in claim 32, wherein said elastomeric urethane has a durometer hardness value of between about 25 shore A to about 99 shore A.

34. The method as in claim 33, wherein said durometer hardness value is between about 80 shore A to about 95 shore A.

35. The method as in claim 33, wherein said durometer hardness value is between about 90 shore A to about 95 shore A.